

Date: Wednesday, 4/5/2006 3:24:10 PM
 User: Kim Johnston

Process Sheet

| | |
|--|--|
| Customer : CU-DAR001 Dart Helicopters Services | Drawing Name : X-TUBE EXTRUSION OH-58 |
| Job Number : 26549 | |
| Estimate Number : 10005 | |
| P.O. Number : N/A | Part Number : D6005128 |
| This Issue : 4/5/2006 S.O. No. : N/A | Drawing Number : D6005 REV A |
| Prsht Rev. : NC | Project Number : N/A |
| First Issue : N/A Type : LANDING GEAR | Drawing Revision : A |
| Previous Run : 25665 | Material : N/A |
| Written By : <i>[Signature]</i> | Due Date : 7/20/2006 Qty: 25 Um: Each |
| Checked & Approved By : <i>[Signature]</i> 06.04.06 | |
| Comment : Est Rev:C 04.06.15 Added tolerance to Step 2 KJ/JLM | |

Additional Product

Job Number:



Seq. #:

Machine Or Operation:

Description :

1.0

PG

PURCHASING



Comment: PURCHASING

Issue P/O: *933*

a) Order as per Dwg D6005

b) Material: 2.750 x 0.375 wall 7075-T6/T6511 (WW-T-700/7 or QQ-A-225/9 or QQ-A-200/11) seamless aluminum tube

c) Minimum ultimate tensile strength = 77 ksi

d) Minimum tensile yield strength = 66 ksi

e) Tolerance are per ASTM B210 (see details on Dwg D6005)

f) Material certification required

2.0

D6005128P

Crosstube material



Comment: Qty.: 1.0000 Each(s)/Unit Total : 25.0000 Each(s)

Crosstube material

3.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Receive & Inspect For Transit Damage

Ensure material certification is attached

4.0

QC6

DIMENSIONAL CHECK



Comment: DIMENSIONAL CHECK

Ensure Material certification comply to Dwg D6005

Dart Aerospace Ltd

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☐ No ☒ DQA: ☒ Date: 07/10/11
 QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Date: Wednesday, 4/5/2006 3:24:10 PM
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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: X-TUBE EXTRUSION OH-58

Job Number: 26549

Part Number: D6005128

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

N/A

6.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

7.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: _____

MA + 25 #24 E 07/01/11 27

8.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

(27)

07/01/11

Job Completion



C 207/01/11

Dart Aerospace Ltd

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
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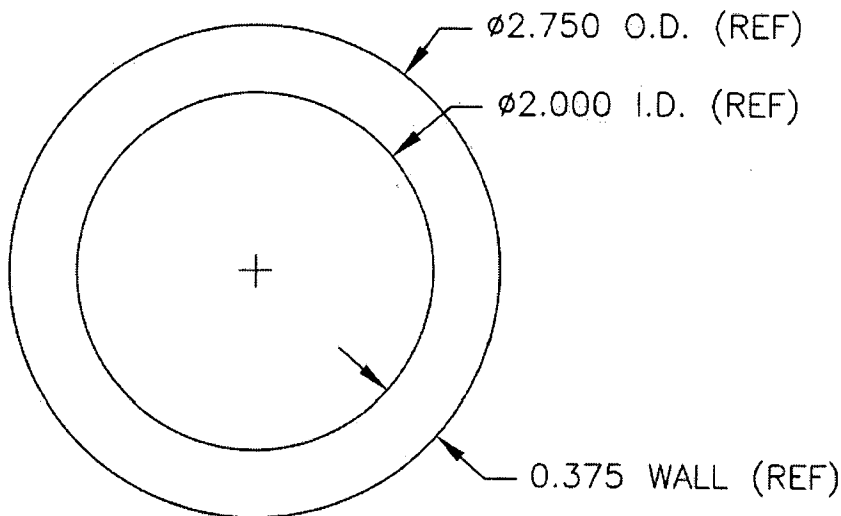
NOTE: Date & initial all entries



| | | | |
|---------------------|-----------------------|---|------------------------|
| DESIGN <i>CP</i> | DRAWN BY <i>CP</i> | DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | |
| CHECKED <i>A</i> | APPROVED <i>A</i> | DRAWING NO. D6005 | REV. A SHEET 1 OF 1 |
| DATE 00.11.17 | | TITLE CROSSTUBE MATERIAL | SCALE 1:1 |
| A | 00.11.17 | NEW ISSUE | |

SPECIFICATION CONTROL DRAWING

RELEASED
00.11.24 *CP*



NOTES

- 1) D6005-XXX CROSSTUBE
LENGTH

WHERE XXX IS LENGTH IN INCHES
EG. 128" LONG TUBE: D6005-128

- 2) MATERIAL: 2.750 OD x 0.375 WALL 7075-T6/T6511 (WW-T-700/7 OR QQ-A-225/9 OR QQ-A-200/11) SEAMLESS ALUMINUM TUBE.
MINIMUM ULTIMATE TENSILE STRENGTH = 77 ksi
MINIMUM YIELD TENSILE STRENGTH = 66 ksi
- 3) TOLERANCES ARE PER ASTM B210 AS FOLLOWS:
O.D.: ± 0.006 MEAN (± 0.012 INCLUDING OVALITY)
WALL: ± 0.015 MEAN (± 0.038 INCLUDING ECCENTRICITY)
LENGTH: XXX $+0.125/-0.000$
STRAIGHTNESS: 0.010" DEVIATION / 12" LENGTH

- 4) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 5) CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

SHOP COPY
ATTENTION TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 26549

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ALUnna

Abnahmeprüfzeugnis 3.1 - EN 10204:2004**Inspection Certificate 3.1 - EN 10204:2004 / Certificat de Reception 3.1- EN 10204:2004****Kunde:** Dart Aerospace Ltd.
Client:1270 Aberdeen Street
K6A1K7 Hawkesbury, ON Canada**Zeugnisnummer:** 764/06
Cert No. / No. du certificat:**Bestellnummer:** PO 00000933
Order No. / No. de commande**Auftrag:** 18609/3
Our Reference/Notre Reference:**Produkt:** Rohre nahtlos gepresst
Product / Produit: Tubes seamless extruded**Spezifikation:** -; AMS - QQ - A - 200/11E; -; Spezifikation Dart Aerospace 6005
Specification:**Werkstoff:** 7075
Alloy/Alliage:**Zustand:** T 6511
Temper/État**Abmessung:** 2,750 INCH x 2,000 INCH x 0,375 INCH x 128,000 INCH
Size / Dimension: D6005-128 2.750 x 0.375 x 128**Kennzeichnung:** ALUnna - Cert No. 764/06 - 7075 - T 6511 - Cast No. 80002 - QQA 200/11E - 2.750" OD X 0.375" Wall - Heat No. 624/08 - Lot 18609/3-1 - PO. 00000933
Marking/Marquage:**Lieferung:** pes. lbs
Delivered Material / Matériel délivré: 27 983
Country of Manufacture: Germany**1. Chemische Analyse****Chemical Analysis / analyse chimique**

| | Si | Fe | Cu | Mn | Mg | Cr | Zn | Ti | Pb | Zr | Bi | Sn | Ni |
|---------------|-------|-------|------|-------|------|-------|------|-------|-------|-------|-------|-------|--------|
| Charge/ min. | | | 1,2 | | 2,1 | 0,18 | 5,1 | | | | | | |
| Cast No. max. | 0,40 | 0,50 | 2,0 | 0,30 | 2,9 | 0,28 | 6,1 | 0,20 | | | | | |
| 80002 | 0,088 | 0,140 | 1,42 | 0,079 | 2,52 | 0,178 | 5,81 | 0,036 | 0,004 | 0,023 | 0,001 | 0,001 | 0,0001 |

Hydrogen content: 0,13 ccm/100 g Al

Elements without indication < 0,01 %

2. Mechanische Eigenschaften**Mechanical Properties / Valeurs Mécaniques**

| Anforderungen Requirements | tensile (Rm) ksi | yield (Rp0,2) ksi | elongation 2" % | elongation A % | Hardness HB | Heat No. |
|-------------------------------|---------------------|----------------------|--------------------|-------------------|----------------|------------------|
| min. max. | 77,0 | 66,0 | | | | |
| 1 | 87,725 ✓ | 81,925 ✓ | 9,0 ✓ | | 171 | 624/08 - 27 pcs. |
| 2 | 87,145 | 80,910 | 9,0 ✓ | | 173 | |

RMS outside 25 - max. 12µ"

**Ergebnis der
Prüfungen:**

Es wird bestätigt, daß die Lieferung geprüft wurde und den Vereinbarungen bei der Bestellannahme entspricht

Test results:

We confirm that the delivery has been tested and applies to the agreements made on receipt of the order

Resultats:

Nous confirmons que la livraison a été contrôlée et correspond avec les conventions faites à la réception de la commande

